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EXAMINER

WOOD, WILLIAM H

ART UNIT

PAPER NUMBER

2124

DATE MAILED: 05/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/750,305

Applicant(s)

MARSHALL ET AL.

Examiner

William H. Wood

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 13-24 and 28-47 is/are rejected.
- 7) ☐ Claim(s) 10-12 and 25-27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

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DETAILED ACTION

Claims 1-47 are pending and have been examined.

Drawings

1. The drawings were received on 18 March 2004. These drawings are approved.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 31, 33, 35, 36, 38 and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by **Wang**, "Telecommunications Network Management".

Claim 31

Wang disclosed a method of managing dependencies in a component-based system comprising:

- ♦ performing at least one of a startup and an initialization of a resource up to intercomponent connection (*page 305, section "Procedural status attribute"*);
- ♦ determining if the resource has any dependency resources, the resource and its dependency resources forming a group of resources (*page 296, section "NE level provisioning", required physical and logical resources; and page 298, section "NE resource configuration maintenance"*);

- ♦ waiting for dependency resources to complete initialization (*page 305, section "Procedural status attribute"*);
- ♦ establishing connections to dependency resources (*page 294, section "Network connection management"*);
- ♦ proceeding with the at least one of startup and initialization (*page 305, section "Procedural status attribute"*); and
- ♦ establishing connections to the resource from the dependency resources (*page 294, "Network connection management"*).

Claim 33

Wang disclosed the method of claim 31 wherein determining if the resource has any dependency resource comprises determining dependency inter-component connection information from inter-component connection information received from an inter-component connection manager (*page 294, section "Network connection management"*; *page 296, section "NE level provisioning", required physical and logical resources; and page 298, section "NE resource configuration maintenance", components to be connected being dependent*).

Claim 35

Wang disclosed the method of claim 31 wherein performing startup of the dependency resources comprises requesting a resource pool manager to assign a dependency resource from the resource pool (*page 300, section "Switch-over"*).

Claims 36, 38 and 40

The system claims 36, 38 and 40 correspond to method claims 31, 33 and 35 respectively and are rejected in the same manner.

4. Claims 41-44 and 47 are rejected under 35 U.S.C. 102(b) as being anticipated by **Svedberg et al.** (USPN 5,408,218).

Claim 41

Svedberg disclosed a method of managing dependencies in a component-based system (*column 2, lines 30-40, lines 57-61; column 3, lines 59-63*) comprising:

- ♦ receiving indication of a state change for a first resource (*column 5, lines 36-43*);
- ♦ transmitting the indication of the state change of the first resource to a second resource dependent on the first resource (*column 5, lines 36-43*);
- ♦ receiving indication of a state change of the second resource (*column 5, lines 36-43*).

Claim 42

Svedberg disclosed the method of claim 41 wherein receiving indication of the state change of the first resource comprises receiving indication of the state change from a managed object view of the first resource (*column 5, lines 36-52; Managed Objects,*

MO), transmitting the indication of state change to the second resource comprises transmitting the indication to a managed object view of the second resource (*column 5, lines 36-52*) and receiving indication of the state change of the second resource comprises receiving the indication of state change from the managed object view of the second resource (*column 5, lines 36-52*).

Claims 43-44 and 47

The system claims 43 and 44 correspond to the method claims 41 and 42 respectively and are rejected in the same manner. The computer executable code of claim 47 corresponds to the method claim 41 and as such is rejected in the same manner.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 3-8, 13-14, 16, 18-23, 28-29, 32, 34, 37 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Wang**, "Telecommunications Network Management" in view of **Curtis** (USPN 6,442,754).

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Claim 1

Wang disclosed a method of dependency management in a component-based system comprising:

- ♦ defining a resource (*page 295 bottom, to 296; numerous resources defined*);
- ♦ recording an identifier for the resource (*page 295 bottom, bulleted point, to 296; identifier inherent in order to maintain states and status of network resources*);
- ♦ recording resource dependency relationships definitions for the resource (*page 296, section "NE level provisioning"; and page 298, section "NE resource configuration maintenance"; relationships maintained in tables, lists or other forms*);
- ♦ deploying the resource and the resource dependency relationships of the resource to a system (*page 296, section "NE level provisioning"*) including
 - ♦ verifying the existence of all dependency relationship resources of the resource on the system (*page 296, section "NE level provisioning"*),

Wang did not explicitly state transmitting a warning if any of the dependencies of the are unsatisfied, creating an abstract resource based on a dependency relationship definition of the abstract resource if the abstract resource is not found on the system.

Curtis demonstrated that it was known at the time of invention to utilize the concept of installing components on a system, which are depended upon by another program being installed (column 4, lines 26-38) and **Curtis** demonstrated making an indication of uninstalled (unsatisfied) dependency components (column 3, lines 64-67). It would

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have been obvious to one of ordinary skill in the art at the time of invention to implement **Wang's** deployment of software resources with installing (creating on the target system) dependency software components (abstract resources) when determined the needed (depended upon) components don't exist on the target system as suggested by **Curtis'** teaching. This implementation would have been obvious because one of ordinary skill in the art would be motivated to enable new or updated software (including resources) to function *correctly* on a target system with all and using all needed components.

Wang indicates dependency resources *should* be in place (page 296; section "NE level provisioning").

Wang did not explicitly state ending deployment if any dependency relationship is unsatisfied and deployment can not be completed without dependency. Official Notice is taken that it was known at the time of invention to not deploy a system, which cannot function correctly. It would have been obvious to one of ordinary skill in the art at the time of invention to implement **Wang's** resource management with stopping deployment when a resource needs dependencies which do not exist. This implementation would have been obvious because one of ordinary skill in the art would be motivated to not deploy software/resources when they cannot function correctly as this would be an inefficient use of time. Furthermore, **Wang** indicated dependency resources *should* be in place for deployment (page 296, section "NE level provisioning").

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Claim 3

Wang disclosed the method of claim 1 wherein recording an identifier to a resource comprises recording an identifier including resource identification, type identification (*page 299, section "Switch-back", primary and secondary designation*). **Wang** did not explicitly state version identification recording. However, Official Notice is taken that it was known at the time of invention to record version information pertaining to software. It would have been obvious to one of ordinary skill in the art at the time of invention to implement **Wang's** resources (software elements) system with recorded version information. This implementation would have been obvious because one of ordinary skill in the art would be motivated to provide for effective configuration management of resources by recording information which aids in upgrades and compatibility tests. Furthermore, **Wang** indicates information of updated resources is to be recorded (*page 297, section "Operation on resources" first bulleted item; page 298, section "NE resource configuration maintenance"*).

Claim 4

Wang disclosed the method of claim 3 wherein recording an identifier further comprises recording an identifier including scope of the resource (*page 299, section "Switch-back", primary and secondary; page 300, bulleted item "Usage"; and page 306, bullets "Off-line" and "Off duty"*).

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Claim 5

Wang disclosed the method of claim 1 wherein recording dependency information comprises recording associations between the resource identifier and resource identifiers for the dependency relationship resources (*page 298, section "NE resource configuration maintenance"; and page 306, bulleted item "Dependency"*).

Claim 6

Wang did not explicitly state wherein recording dependency information comprises automatically recording dependency information. Official Notice is taken that it was known at the time of invention to automatically record information. It would have been obvious to one of ordinary skill in the art at the time of invention to implement **Wang's** resources system with automatic recording of dependency information. This implementation would have been obvious because one of ordinary skill in the art would be motivated to provide a system, which can operate quickly (whether a human operator is present or not) in order to ensure an accurate representation of the system state as suggested by **Wang** (*page 298, section "NE resource configuration management", constant attention*).

Claim 7

Wang disclosed the method of claim 1 wherein recording dependency information comprises manually recording dependency information through one of: software coding

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and configuration (*page 294-295, section "Network topology management", static definition requires human encoding or configuring (also encoding)*).

Claim 8

Wang disclosed the method of claim 1 wherein recording resource dependency definitions comprises defining dependencies for the resource (*as Wang demonstrates recording dependency definitions it must inherently comprise "defining" those dependencies*).

Claim 13

Wang disclosed the method of claim 1 wherein deploying the resource comprises using a deployment tool to deploy the resource wherein the deployment tool transmits information regarding dependency relationships to a resource management infrastructure (*page 296, section "NE level provisioning", the provisioning tool reports configuration information to management applications; page 298, section "NE resource configuration maintenance", indicates relationships (dependency) information included within configuration information*).

Claim 14

Wang disclosed the method of claim 1 wherein recording resource dependency relationships definitions for the resource comprises recording dependency relationships to at least one resource pool, the resource pool including a set of homogenous

resources used interchangeably on a dynamic basis and allocated to dependent objects as needed (*page 300, section "Switch-over"*).

Claim 32

Wang did not explicitly state method of claim 31 further comprising:

- ♦ receiving indication from the resource that its internal resources have been successfully allocated and that the resource is waiting for connection;
- ♦ requesting connection information from an inter-component connection manager; and
- ♦ receiving inter-component connection information from the inter-component connection manager.

Curtis demonstrated that it was known at the time of invention to provide software components/resources, which have dependencies satisfied (column 4, lines 10-25). Furthermore, **Wang** demonstrated network connection management (*page 294, section "Network connection management"*). It would have been obvious to one of ordinary skill in the art at the time of invention to implement the component dependencies of **Wang** with receiving an indication dependencies/internal resources are allocated and ready/waiting for connection (obvious because, **Curtis** indicates important for correct operation of components); requesting connection information from connection manager (obvious because, **Wang** connects components when objects can function correctly with dependencies); and receiving connection information (obvious because, **Wang** needs information to perform connection) as found in **Wang** and **Curtis**' teaching.

Claim 34

Wang did not explicitly state the method of claim 31 wherein inter-component connection the resources comprises:

- ♦ placing the resource on a ready for inter-component connection list until the dependency resources have been started;
- ♦ receiving indication from the dependency resource that its internal resources have been successfully allocated and that the dependency resource is waiting for inter-component connection;
- ♦ requesting inter-component connection information from a inter-component connection manager; and
- ♦ traversing all entries of inter-component connection information.

Official Notice is taken that it was known at the time of invention to utilize lists or queue of waiting operations. It would have been obvious to one of ordinary skill in the art at the time of invention to implement the resource dependency connection system of **Wang** with list of waiting resources until they are ready. This implementation would have been obvious because one of ordinary skill in the art would be motivated to provide an organized system of managing resources as they are prepared for correctly functioning operation.

Wang did not explicitly state receiving indication from the dependency resource that its internal resources have been successfully allocated and that the dependency resource

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is waiting for inter-component connection; requesting inter-component connection information from a inter-component connection manager; and traversing all entries of the inter-component connection information. **Curtis** demonstrated that it was known at the time of invention to provide software components/resources, which have dependencies satisfied (column 4, lines 10-25). Furthermore, **Wang** demonstrated network connection management (page 294, section "Network connection management"). It would have been obvious to one of ordinary skill in the art at the time of invention to implement the component dependencies of **Wang** with receiving an indication dependencies/internal resources are allocated and ready/waiting for connection (obvious because, **Curtis** indicates important for correct operation of components); requesting connection information from connection manager (obvious because, **Wang** connects components when objects can function correctly with dependencies); and traversing all entries of the inter-component connection information (obvious because, **Wang** will connect all required connections) as found in **Wang** and **Curtis'** teaching.

Claims 16, 18-23, 28-29, 37 and 39

The system claims 16, 18-23, 28-29, 37 and 39 correspond to the method claims 1, 3-8, 13-14, 32 and 34 and as such are rejected in the same manner.

7. Claims 2 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Wang**, "Telecommunications Network Management" in view of **Curtis** (USPN 6,442,754) and in further view of **Deo** et al. (USPN 6,594,355).

Claim 2

Wang disclosed the method of claim 1 wherein defining a resource comprises storing a definition of a resource in a tool to be accessed by a service creation environment ("SCE") (page 14-15, section "Service Creation Environment"). **Wang** did not explicitly state a deployment tool and a service logic execution environment ("SLEE"). **Deo** demonstrated that it was known at the time of invention to utilize SLEEs and deployment tools (column 15, lines 10-15, SLEE). It would have been obvious to one of ordinary skill in the art at the time of invention to implement the component resource system of **Wang** with a SLEE as found in **Deo's** teaching. This implementation would have been obvious because one of ordinary skill in the art would be motivated to provide a commonly known mechanism to deploy and manage components/resources.

Claim 17

The system claim 17 corresponds to the method claim 2 and as such is rejected in the same manner.

8. Claims 9 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Wang**, "Telecommunications Network Management" in view of **Curtis** (USPN 6,442,754) and in further view of **Svedberg** et al. (USPN 5,408,218).

Claim 9

Wang and **Curtis** did not explicitly state the method of claim 1 wherein recording resource dependency definitions comprises identifying type of dependency for each dependency resource. **Yue** demonstrated that it was known at the time of invention to record various types of resource dependency information (column 6, lines 54-58). It would have been obvious to one of ordinary skill in the art at the time of invention to implement resource management system of **Wang** and **Curtis** with recording resource type information as found in **Yue's** teaching. This implementation would have been obvious because one of ordinary skill in the art would be motivated to provide information to aid in network management including reducing bottlenecks (**Yue**: column 1, lines 6-15).

Claim 24

The system claim 24 corresponds to the method claim 9 and as such is rejected in the same manner.

9. Claims 15 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Wang**, "Telecommunications Network Management" in view of **Curtis** (USPN 6,442,754) and in further view of **Svedberg** et al. (USPN 5,408,218).

Claim 15

Wang did not explicitly state the method of claim 1 further comprising creating a relationship between the resource and a resource pool manager if the resource will be used interchangeably with other resources in a resource pool, wherein the resource pool manager acts as a proxy for the pooled resources and handles dependency relationships on behalf of the pooled resources. **Svedberg** demonstrated that it was known at the time of invention to implement a pool of resource, wherein the pool acts as a proxy for the component resources handling relationships (column 12, lines 41-65; and column 5, lines 29-52; and column 6, lines 11-13). It would have been obvious to one of ordinary skill in the art at the time of invention to implement the resource system of **Wang** with a pool handling relationships as found in **Svedberg's** teaching. This implementation would have been obvious because one of ordinary skill in the art would be motivated to provide common resource functionality (**Svedberg**: column 12, lines 41-52).

Claim 30

The system claim 30 corresponds to the method claim 15 and as such is rejected in the same manner.

Allowable Subject Matter

10. Claims 10-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

11. Applicant's arguments filed 18 March 2004 have been fully considered but they are not persuasive. Applicant argued within the paper filed: ⁱ⁾ **Wang** failed to disclose performing at least one of a startup and an initialization of a resource up to intercomponent connection (page 9, lines 7-9); ⁱⁱ⁾ **Wang** failed to disclose waiting for dependency resources to complete initialization (page 9, lines 19-20); ⁱⁱⁱ⁾ **Wang** failed to disclose determining if a resource has any dependency resources (page 10, lines 2-3); ^{iv)} **Wang** further failed to disclose receiving inter-component connection information from an inter-component connection manager (page 11, lines 7-11); ^{v)} **Wang** failed to disclose requesting assignment from a resource pool during the startup of a resource (page 11, lines 19-22); ^{vi)} **Svedberg** failed to disclose receiving an indication of a state change (page 13, lines 12); ^{vii)} **Wang** and **Curtis** are non-analogous arts and thus unreasonable to combinable (page 15, lines 15-16); ^{viii)} **Wang** failed to disclose verifying the existence of dependency resources (page 17, lines 3-4 from bottom); and ^{ix)} various allegations of unsupported limitations (page 18, line 17 to page 19, line 5).

First, **Wang** did disclose *performing at least one of a startup and an initialization of a resource up to intercomponent connection*. The cited portion of **Wang** (page 305, "Procedural status attribute") states performing through the fact that an attribute exists indicating the state of the performing. For example, *Initializing* state (third bulleted item) states the procedure has been initiated and is not yet complete. Additionally, "up to intercomponent connection" is indicated by the statement, "Or a procedure must reach a certain phase before a resource can be operational and available for use". Meaning the initialization is performed before or up to the resource being connected.

Second, **Wang** did disclose the waiting element. Note that in the cited portion (page 5, "Procedural status attribute") a resource must be initialized properly before it can be used. Dependency resources are disclosed on page 296.

Third, **Wang** did disclose *determining if a resource has any dependency resources*. "The goals of NE level provisioning are to ensure that adequate resources at the NE are deployed and configured to implement the services subscribed to by customers. For example, if a central office switch is to provide ISDN service to the area subscribers, the required physical resources, such as the interface card, and logical resources, such as software modules, should be in place before the service offering" (page 296, first two sentences under "NE level provisioning"). "Any of the above operations on the NE resource will result in a change in either the resource state, status, or relationship with another resource, and the changes need to be reflected in the NE resource configuration" (page 298, first sentence under "NE resource configuration maintenance"). These two passages clearly indicate determining

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dependency resources through relationships and their required status of what is needed.

Fourth, **Wang** disclosed an inter-component connection manager. As previously cited page 294, section "Network connection management" provides for the inter-component connection manager. The broadest reasonable interpretation of the claim language reads upon the connection management as some structure must implement the management and thus the connection manager of Applicant.

Fifth, **Wang** disclosed assigning from a resource pool. The relevant portion of **Wang** (page 299-300, section "NE control operations") states resource activation and deactivation and "switch-back" and "switch-over". Switch-back and Switch-over clearly indicate a pool of available resources that can be switched between. Resource activation clearly indicates controlling configuration and maintenance during "startup".

Sixth, **Svedberg** did disclose receiving an indication of a state change, see column 5, line 40. Here use of *propagated* indicates this information exchange.

Seventh, **Wang** and **Curtis** are not non-analogous art. They are analogous as evidenced by "loading the resources" (**Wang**: page 297, first bulleted item; and generally the entire "NE level provisioning" section); installing and configuring resources/components (**Wang**: page 298, section "NE resource configuration maintenance"); and installing programs/components (**Curtis**: column 2, lines 25-30; column 4, lines 1-3). The two references are related to one another through at least the installation and configuration of modules/components/resources of software/code. The

telecommunications network management field of **Wang** includes software installation, which is explicitly discussed by **Curtis**.

Eighth, **Wang** did disclose verifying the existence of dependency resources (**Wang**: page 296-299, section "NE level provisioning"). Similar to the "determining if a resource has a dependency" argument above, "verifying" is demonstrated by two passages. "The goals of NE level provisioning are to ensure that adequate resources at the NE are deployed and configured to implement the services subscribed to bny customers. For example, if a central office switch is to provide ISDN service to the area subscribers, the required physical resources, such as the interface card, and logical resources, such as software modules, should be in place before the service offering" (page 296, first two sentences under "NE level provisioning"). "Any of the above operations on the NE resource will result in a change in either the resource state, status, or relationship with another resource, and the changes need to be reflected in the NE resource configuration" (page 298, first sentence under "NE resource configuration maintenance"). These two passages clearly indicate verifying or determining dependency resources through relationships and their required status of what is needed.

Ninth, it is unclear from Applicant's arguments why it was asserted the various limitations were not met by the references **Wang** and **Curtis** as cited. Thus, Applicant is referred to the previous Office Action where a detailed mapping of claim language to reference was provided and the above arguments.

Finally, the above points are believed to address all of Applicant's concerns. All other claims or arguments not directly discussed are believed to either be dependent from the above or identical arguments to the above. Thus, the rejections are maintained as originally stated.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Wood whose telephone number is (703)305-3305. The examiner can normally be reached 7:30am - 5:00pm Monday thru Thursday and 7:30am - 4:00pm every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (703)305-9662. The fax phone numbers for the organization where this application or proceeding is assigned are (703)746-7239 for regular communications and (703)746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

William H. Wood
May 11, 2004

A handwritten signature in black ink, appearing to read 'TODD INGBERG', with a long, sweeping line extending from the end of the signature towards the upper right corner of the page.

**TODD INGBERG
PRIMARY EXAMINER**